

ABSTRACT OF THE DISCLOSURE

For manufacturing a semiconductor device, such
5 as thin-film solar battery, comprising a base body made of
an organic high polymer material, an oxide electrode film
and semiconductor thin film each containing at least one
kind of group IV elements on the oxide electrode film, one
of the semiconductor thin films in contact with the oxide
10 electrode film is stacked by sputtering in a non-reducing
atmosphere such as atmosphere not containing hydrogen gas,
for example. Thereby, it is ensured that granular products
as large as and beyond 3 nm are not contained substantially
at the interface between the oxide electrode film and that
15 semiconductor thin film. Therefore, a semiconductor thin
film such as amorphous semiconductor thin film can be stacked
with enhanced adherence on a plastic substrate having an
oxide electrode film like ITO film on its surface.